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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/765,766	DENG ET AL.
	Examiner	Art Unit
	Camquy Truong	2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/27/2002*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)

Office Action Summary

Part of Paper No./Mail Date 1

DETAILED ACTION

1.   Claims 1-22 are presented for examination.

2.   It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

3.   The cross reference related to the application cited in the specification must be updated (i.e. update the relevant status, with PTO serial numbers or patent numbers where appropriate, on page 1, lines 8-10; the entire specification should be so revised).

Claim Objections

4.   Claim 1 is objected to because of the following informalities: line 9, duplicate " in response to ". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lumelsky et al (U.S. Patent 6,463,454 B1).

7.   As to claims 1 and 15, Lumelsky teaches the invention substantially as claimed including: A method for distributing incoming client requests across multiple servers in a networked client-server computer environment (col.6, lines 51-54), said method comprising the steps of:

(a)   Collecting at least two clients requests incoming within a predetermined time interval (col. 6, lines 56-68; col.9, lines 51-53; col.13, lines 6-11; col. 17, lines 7-17 and lines 52-55);

(b)   Analyzing each said collected client request with respect to at least one attribute (col. 13, lines 26-32; col.18, lines 7-11; col. 16, lines 52-54);

(c)   Collecting resource capability information of each server (col.10, lines 57-61; col. 14, lines 62-66);

(d)   Upon completion of said time interval, distributing said client requests across the multiple servers in response to the attributes of said client requests and the resources capability information of the multiple servers (col.6, lines 26-28; col.14, lines 59-66);

(e)   Repeating steps (a) through (d) for subsequent ones of said time interval (col.14, lines 30-47).

8.   Lumelsky does not explicitly teach that the distributing of the request is a collected of client requests. However, Lumelsky disclosed that his system can distribute or placing requests to servers (col. 6, lines 26-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made that in fact Lumelsky's system is capable of receiving collection of request (Fig. 5, 600-604) and distributed that collections to plurality of servers.

9.   As to claim 9, it is rejected as the same reason as claim 1. In addition, Lumelsky teaches:

(c) Analyzing said at least one attribute for ascertaining statistical patterns across said collected requests (col.12, lines 4-8; col. 13, lines 26-32; col. 16, lines 52-54);

(d) Identifying at least one resource parameter for said servers (col.10, lines 57-67; col. 14, lines 62-66);

(e) Collecting a resource capability metric of each server for said at least one resource parameter (col.10, lines 57-67; col. 14, lines 62-65);

(f) Assigning a resource need metric for said at least one resource parameter to each statistical pattern (col.6, lines 64-66; col. 12, lines 54-58; col. 13, lines 62-65; col. 14, line 65);

(g) Correlating each of said collected requests with at least one said

statistical pattern (col.18, lines 8-11; col. 17, lines 7-12);

(h) Assigning said metric for said at least one resource parameter

assigned to said statistical pattern correlate to said collected request (col.6, lines

64-66; col. 12, lines 54-58);

(i) Determining a metric distance between a resource need metric and

resource capability metric for at least one combination of a paring of said

collected request and one of said servers (col. 12, lines 54-56; col. 13, lines 60-

67; col.16, lines 40-43; col. 29, lines 14-17);

(j) Upon completion of said time interval, selecting a server for each of

said collected request so that a sum of said metric distances for said pairing is

minimized (col.14, lines 62-66).

10.   As to claims 2 and 10, Lumelsky the attributes analyzed in step 9b) are

selected from the set comprising: categorical criteria and demographic criteria

(col. 18, lines 7-11; col. 21, lines 52-53; col. 29, lines 24-29);

11.   As to claims 3,11 and 18 Lumelsky teaches resource capability

information comprise a resource capability metric for each of at least five

resource parameters for each server, regarding the server's CPU availability,

memory availability, connectivity to storage, connectivity to a proxy server and connectivity to peer servers (col.10, line 64).

12.   As to claims 4,12 and 17, Lumelsky teaches step (a) further comprises the step of providing a dynamic, relational database and process of statistical inference for ascertaining expected demand patterns involving said at least one attribute (col. 18, lines 7-11; col.22, line 6).

13.   As to claims 5,13 and 19, Lumelsky teaches the number of said expected demand pattern can dynamically increase or decrease (col. 24 lines 39-44).

14.   As to claims 6 and 20, Lumelsky teaches a resource requirement metric for each of said at least five resources is assigned to each expected demand pattern (col.6, lines 64-66; col. 12, lines 54-58; col. 14, line 65), wherein each said collected request is identified with at least one said expected demand pattern (col. 9, lines 55) and wherein said resource requirement metrics assigned to said identifying expected demand pattern are further assigned to said collected request (col.6, lines 64-66; col. 12, lines 54-58).

15.   As to claims 7 and 21, Lumelsky teaches determining the metric distance between said resource requirement metric and said resource capability metrics

for at least one combination of said collected request and server pairings (col. 12, lines 54-56; col. 13, lines 60-67) and selecting a server for each said collected request so that sum of said metric distance for said at least one combination of said pairing is minimized (col.14, lines 62-66).

16.   As to claims 8, 14 and 22, Lumelsky teaches an optimization paradigm is used to at least partially perform step (d) (col. 28, line 60; col. 29, lines 41-42).

17.   As to claim 16, Lumelsky teaches there are at least two said time intervals and said time intervals are consecutive (col. 17, lines 52-54).

Conclusion

18.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (703) 305 - 8888. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR of Public PAIP. Status information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

have questions on access to the Private PAIP system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

August 12, 2004

MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100